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Lydekker, R.
Catalogue of fossil mammals, birds, reptiles, and amphibians in the Science and Art Museum.

HARVARD UNIVERSITY

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SCIENCE AND ART MUSEUM, DUBLIN.

CATALOGUE

OF

FOSSIL MAMMALS, BIRDS, REPTILES, AND AMPHIBIANS

IN THE

SCIENCE AND ART MUSEUM,

BY

R. LYDEKKER, B.A.

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PREFACE.

In the year 1884, Mr. R. Lydekker prepared a list of our extensive collection of fossil remains from the Siwalik Hills of India, and up to the present year, owing to want of space, that collection has been kept isolated from the other specimens of Vertebrate fossils contained in the Museum.

As soon, however, as space became available by the removal of the Art collections to the New Building, the whole of the fossils formerly distributed throughout the Museum were concentrated in what had been the Temporary Art Museum, and were there roughly classified.

Mr. Lydekker having again given us the benefit of his services, has on this occasion classified and enumerated in the following pages the whole collection of Fossil Vertebrates, exclusive of the fishes.

As the author of the British Museum catalogues on the same subjects Mr. Lydekker is so well known as an expert, that it is peculiarly gratifying to be able to refer to the high opinion which he has formed of the value and importance of the specimens in this, hitherto, unavoidably somewhat neglected collection.

The Vertebrate fossils having now been classified, it is hoped that the Invertebrate fossils, of which also there is a large collection, will ere long be similarly dealt with, and that we shall then have this Department of the Museum in a thoroughly good condition of arrangement.

V. BALL,
Director,
Science and Art Museum.

LEINSTER HOUSE,
13th. November, 1890.

INTRODUCTORY.

The present catalogue includes all the fossil species in the classes mentioned on the title page, of which there are representatives in the Museum. In cases where such remains are numerous the specimens are not catalogued individually ; and since the Siwalik collection has been already catalogued [*Trans. R. Dub. Soc. (2) vol. III. art. 4 (1884.)*], only the more important specimens of each species are entered here. Species which are found fossil in Ireland are denoted by an asterisk.

The most noticeable features in the collection are as follows—: (1) The fine and extensive series of remains of the Gigantic Irish Deer (Elk). (2) The large and unique collection of remains from the Irish cavern-deposits. (3) The rare and almost unique specimens included in the Siwalik collection. (4) The magnificient series of so-called Enaliosauria (Ichthyopterygia and Sauropterygia) from the Lias. In this series the genus *Thaumatosaurus* is represented by almost complete skeletons of three species, and in this respect is the finest in the United Kingdom. The number of entire skeletons of *Ichthyosaurus tenuirostris*, or the closely allied *I. latifrons*, from Barrow-on-Soar is also worthy of mention. (5) A large number of Labyrinthodont remains from the Kilkenny coal-measures: many of them unfortunately much injured by pyritous decomposition.

The types of five species and one genus are contained in the collection ; viz. *Felis subhimalayana*, *Arctosaurus osborni*, *Thaumatosaurus cramptoni*, *Anthracosaurus edgei*, and *Dolichosoma huxleyi*. It is not improbable that the Plesiosaurian vertebra from the Rhætic of Bristol entered in the sequel indicates a new species.

R. LYDEKKER.

CATALOGUE
OF
FOSSIL MAMMALS, BIRDS, REPTILES, & AMPHIBIANS.

CLASS MAMMALIA.

ORDER PRIMATES.

FAMILY SIMIIDÆ.

ANTHROPOPITHECUS SIVALENSIS.

Palæopithecus sivalensis. *Lydekker*, Rec. Geol. Surv. Ind., vol. XII, p. 33 (1879).

a. Two Casts of portion of the palate. Originals (type) from Siwaliks of Punjab, India :—Indian Museum, Calcutta. *Presented by R. Lydekker, Esq.*, 1890.

FAMILY CERCOPITHECIDÆ.

CYNOCEPHALUS SUBHIMALAYANUS.

Semnopithecus subhimalayanus, *Meyer, in Bronn's Index Palæont.* p. 1133 (1848).

a. Cast of right maxilla. Original (type) in British Museum (No. 31157); Siwalik Hills, India.

CYNOCEPHALUS FALCONERI.

Lydekker, Pal. Ind. ser. 10. vol. IV. p. 7. (1886).

Cast of imperfect mandible. Original (type) in British Museum (No. 15709); Siwalik Hills, India.

ORDER INSECTIVORA.

FAMILY ERINACEIDÆ.

ERINACEUS EUROPÆUS.

Linn., Syst. Nat. ed. 12, vol. I. p. 75 (1766).

a. The right tibia, from Ballynamintra Cave, Co. Waterford. Leith Adams, Trans. Royal Dublin Society, new ser. vol. I, p. 206. *Presented by R. J. Ussher, Esq.*

ORDER CARNIVORA.

FAMILY FELIDÆ.

MACHÆRODUS SIVALENSIS.

Drepanodon sivalensis, Falc. and Caut. Falconer's Pal. Mem. vol. I. p. 550 (1868).

a. Imperfect left mandibular ramus; Siwalik Hills, India. Lydekker, Pal. Ind., ser. 10. vol. II, p. 336, fig. 18.
Baker and Durand Collection.

MACHÆRODUS PALÆINDICUS.

Bose, Quart. Journ., Geol. Soc. vol. XXXVI, p. 125 (1880).

a. Cast of occipital region of the cranium. Original in British Museum (No. 39728); Siwalik Hills, India.

b. Cast of crushed cranium. Original in British Museum (No. 39729); Siwalik Hills.

FELIS LEO.

Linn., Syst. Nat., ed. 12. vol. I., p. 60 (1766).

a. Casts of upper and lower dentition; original from a European Pleistocene deposit.

FELIS CRISTATA.

Falc. and Caut., Asiat. Research. vol. XIX., p. 135 (1836).

a. Cast of cranium. Original (type) in Museum R. Coll. Surg.; Siwalik Hills, India.

b. Cast of hinder part of cranium. Original in British Museum (No. 49176); Siwalik Hills.

c. Cast of hinder part of a larger cranium. Original (type of *F. grandicristata*, Bose) in British Museum (No. 49175); Siwalik Hills.

FELIS SUBHIMALAYANA.

Bronn, Index Palæont p. 492 (1848).

a. Imperfect skull and bones; Siwalik Hills. India. Type

FAMILY HYÆNIDÆ.

HYÆNA CROCUTA.

Erxleben, Spec. Zool. Geogr. p. 365 (1777).

Hyæna spelæa, *Goldf., N. Act. Ac. Cæs. Leop.-Car.* vol. XI., p. 456 (1823).

I. *From Kent's Hole Cavern, Torquay, Devon.*

a. Fragments of jaws with teeth.

b. Upper carnassial teeth.

c. Lower carnassial teeth.

d. Premolar teeth.

e. Canine and incisor teeth.

II. *From a European Pleistocene deposit.*

f. Casts of the upper and lower dentition.

HYÆNA FELINA.

Bose, Quart. Journ., Geol. Soc. vol. XXVI, p. 130 (1880).

From the Siwaliks of India.

a. Cast of cranium. Original (type) in British Museum (No. 15902).

b. Nearly entire skull. This is one of the most important specimens in the collection and has been figured by the writer. (No. C. 42). *Baker and Durand Collection.*

c. Cast of left mandibular ramus. Original in Indian Museum, Calcutta.

d. Anterior part of right mandibular ramus, with the canine and three premolars. This specimen is as large as the preceding. (No. C. 40. *a.*) *Baker and Durand Collection.*

e. Cast of imperfect right mandibular ramus, with last three teeth, referable to this or the next species. Original in Indian Museum.

HYÆNA COLVINI.

Lydekker, Pal. Ind., ser. 10, vol. II., p. 290 (1884).

a. Cast of cranium. Original (type) in Indian Museum, Calcutta; Siwalik Hills, India.

b. Cast of imperfect immature cranium. Original in Indian Museum; Siwalik Hills.

c. Part of left maxilla, with the last three teeth, belonging to the original of the preceding specimen. (No. C. 41).

Baker and Durand Collection.

d. Left mandibular ramus belonging to the same individual as the preceding specimen. This jaw is very much smaller than that of *H. felina*; whereas the carnassial tooth of the preceding specimen is larger than the corresponding tooth of the skull *b.* of *H. felina*. *Baker and Durand Collection.*

e. Cast of part of left mandibular ramus with last premolar and carnassial teeth. Original in Indian Museum; Siwalik Hills.

HYÆNA SIVALENSIS.

Bose, Quart. Journ. Geol. Soc. vol. XXXVI. p. 128 (1880).

a. Cast of cranium. Original (type) in British Museum (No. 37133); Siwalik Hills, India.

b. Cast of part of right mandibular ramus, with the last premolar and carnassial teeth. Original in Indian Museum, Calcutta; from the Punjab, India.

HYÆNA MACROSTOMA.

Lydekker, Pal. Ind., ser. 10, vol. II, p. 298 (1884).

a. Cast of cranium, wanting nearly all the teeth. Original (type) in Indian Museum, Calcutta; from the Punjab, India.

b. Cast of part of right mandibular ramus, with last two premolars. Original in Indian Museum; from the Punjab.

FAMILY VIVERRIDÆ.

VIVERRA BAKERI.

Bose, Quart. Journ. Geol. Soc. vol. XXXVI, p. 131 (1880).

a. Cast of imperfect cranium. Original (type) in British Museum, (No. 40183); from Siwalik Hills, India.

VIVERRA DURANDI.

Lydekker, Pal. Ind., ser. 10, vol. II, p. 271 (1884),

a. Cast of imperfect cranium, wanting the teeth. Original in British Museum (No. 37150); from Siwalik Hills, India.

FAMILY CANIDÆ.

* *CANIS LUPUS.*

Linn, Syst. Nat. ed. 12, vol. I, p. 50 (1766).

I. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

a. A right upper carnarsial, which from its large size is probably referable to this species. (No. 167).

b. The imperfect right humerus, wanting the proximal extremity. (No. 554).

c. The proximal extremity of the left humerus. (No. 372).

II. *From Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

d. Part of left mandibular ramus, with four premolars, and imperfect carnassial tooth. Leith Adams, Trans. R. I. Acad. vol. XXVI, pp. 227, 228, and Proc. Royal Dublin Society, new ser. vol. II, p. 68, pl. I, fig. 2.

III. *From a European Pleistocene deposit.*

e. Casts of the dentition of the upper and lower jaws.

CANIS CAUTLEYI.

Bose, Quart. Journ. Geol. Soc., vol. XXXVI, p. 135 (1880).

a. The imperfect cranium; from the Siwalik Hills, India. Figured by the writer. (No. C. 40, *a.*)

Baker and Durand Collection.

b. Part of left mandibular ramus belonging to the same individual as the preceding specimen; Siwalik Hills. (No. C. 44).

Baker and Durand Collection.

c. Part of right mandibular ramus; Siwalik Hills. (No. C. 48.)

Baker and Durand Collection.

* *CANIS VULPES.*

Linn., Syst. Nat. ed. 12, vol. I, p. 59 (1766).

I. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

a. Left mandibular ramus, wanting several teeth.

b. Left mandibular ramus, with last two teeth.

c. Part of right mandibular ramus, with last two teeth.

d. Occipital region of cranium.

e. Right maxilla of cub, with milk-carnassial and molar, and permanent molar in its alveolus.

f. Part of left mandibular ramus of cub, with two milk-teeth.

g. Part of right mandibular ramus of cub, with two milk-teeth.

h. Numerous limb-bones and vertebræ.

II. *From Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

i. The two rami of the mandible, with some teeth missing.

j. The left ramus of the mandible, with four teeth remaining.

k. A numerous series of limb-bones.

III. *From Kents Hole Cavern, Torquay, Devon.*

l. Part of the left mandibular ramus, with the first and second premolars, and the carnassial tooth.

* *CANIS DOMESTICUS*, var. *HIBERNICUS.*

From a crannogue, near Dunshaughlin, Co. Meath. Presented by Sir William Wilde.

a. The cranium, showing the canine and last three teeth of either side. Leith Adams 'Proc. R. Dubl. Soc.,' new ser., vol. II, p. 67, pl. V. This fine skull of the Irish Wolf Hound measures ten inches in length.

b. A nearly similar cranium, with the left carnassial and the last molars.

c. A somewhat smaller cranium.

d. Three considerably smaller crania.

Several of the above specimens were presented by the Royal Irish Academy.

FAMILY URSIDÆ.

HYÆNARCTUS PUNJABIENSIS.

Lydekker, Pal. Ind. ser. 10, vol. II, p. 226 (1884).

From the Punjab, India.

a. Cast of five associated upper cheek-teeth. Original (type) in Indian Museum, Calcutta.

b. Cast of mandible. Original (type) in Indian Museum.

HYÆNARCTUS PALÆINDICUS,

Lydekker, loc. cit.

From the Punjab, India.

a. Cast of part of right maxilla, with teeth. Original (type) in Indian Museum.

b. Casts of two fragments of the mandible, with teeth. Originals in Indian Museum.

HYÆNARCTUS, sp.

From the Red Crag, Suffolk.

a. Cast of an upper molar tooth. Original in York Museum.

URSUS SPELÆUS.

Rosenmuller, Oss. Foss. Anim. p. 18 (1794).

I. *From Kents Hole Cave, Torquay, Devon.*

a. A number of premolar and molar teeth.

b. Several canine teeth.

c. The left astragalus.

II. *From a cave at Cracow, Poland.*

d. The entire skull.

e. A number of limb-bones.

III. *From the Sophia Cavern, Franconia, Bavaria.*

f. Cast of the cranium, wanting all the teeth except one last molar. Original in British Museum. (No. 28545, *a.*)

Presented by the Trustees of British Museum.

IV. *From the Gailenreuth Cavern, Franconia. Presented by R. H. Scott. Esq.*

g. Fragments of the cranium and jaws.

h. Limb-bones and vertebræ.

V. *From a Continental Cavern-deposit.*

i. Casts of the upper and lower dentition.

* *URSUS ARCTUS.*

Linn., Syst. Nat., ed. 12, vol. I. p. 69 (1766).

Several of the under-mentioned skulls, &c. were referred by Busk and Leith Adams to *U. horribilis*, but the writer now believes that it is impossible to separate them from *U. arctus*, of which *U. horribilis* is probably little more than a local race.

I. *From a bog at Ballinamore, Co. Leitrim.*

a. Cast of cranium; Original in British Museum. Figured by L. Adams in Proc. R. Dubl. Soc., new ser. vol. II, pl. III.

II. *From a bog on the borders of Longford and Westmeath.*

b. Casts of two crania; Originals in Leeds Museum. Described by Adams, *op. cit.* pp. 52, 53; one is the type of *U. planifrons*, Denny.

III. *From an excavation at Clonbourne, near Parsonstown, King's County.*

c. Cast of an imperfect cranium. Original in British Museum. Described by Leith Adams, *op. cit.* pp. 53, 54.

IV. *From a cutting on the river Boyne, near Kilrathmurray, Co. Kildare. Presented by the Royal Irish Academy.*

d. A slightly imperfect cranium, wanting the incisors, anterior premolars, and last molars.

V. *From the Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

e. A large portion of the skeleton of a very old individual, in a broken condition. Leith Adams Trans., R. I. Acad., vol. XXVI, p. 225. The fragments of jaws, which have the cheek-teeth greatly worn, are figured by Carte in the 'Journ. R, Dubl. Soc.,' vol. II, pl. XI, XII.

VI. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

59. The imperfect mandible. Leith Adams 'Trans. R. Dubl. Soc.' new ser. vol. I, p. 203, pl. XIV, fig. 1. This specimen, in which the teeth are scarcely touched by wear, indicates a very large individual, but was apparently equalled in size by a recent skeleton in the British Museum. It has nothing to do with *U. spelæus*, to which it was compared by Adams.

f. A considerable series of limb bones, &c. many of them belonging to the hind limb of a single individual. They are noticed by Leith Adams, *loc. cit.*, who figured (pl. XIV, fig. 3) an astragalus.

VII. *From a cutting at Lough Gur, Co. Limerick.*

g. Several limb bones, &c., belonging to a single individual. These comprise an imperfect humerus, an entire femur, fibula, vertebræ, &c. Leith Adams 'Proc. R. Dubl. Soc.' new ser., vol. I, pp. 57-62; the femur being figured in pl. IV, fig. 3 of that memoir.

FAMILY MUSTELIDÆ.

* *MUSTELA MARTES.*

Linn., Syst. Nat., ed. 12, vol. I, p. 66 (1766).

From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq

a. Left ramus of mandible with four cheek-teeth.

b. Smaller left mandibular ramus, with canine and four cheek-teeth.

c. Left maxilla with last four teeth.

d. Imperfect right humerus.

e. Imperfect left femur.

f. Imperfect right femur.

g. Sacrum.

All the above are noticed by Leith Adams, 'Trans. R. Dubl. Soc.' new ser. vol. I, p. 205.

MELLIVORA SIVALENSIS.

Ursitaxus sivalensis, *Falc. and Caut., Asiat. Research*, vol. XIX, p. 60 (1836).

a. The nearly entire cranium; from the Siwalik Hills, India. This is the second of the two known specimens, the other being in the British Museum (No. 40184). *Baker and Durand Collection.*

b. Part of the left mandibular ramus; Siwalik Hills, India. *Baker and Durand Collection.*

* *MELES TAXUS.*

Boddaert, Elenchus Animal. vol. I, p. 80 (1785).

I. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

a. The imperfect skull. The whole of the palate is wanting, but in the lower jaw the last premolar and the carnassial teeth of either side are preserved. Leith Adams, Trans. R. Dubl. Soc., new ser., vol. I, p. 204

II. *From Kent's Hole Cavern, Torquay, Devon.*

b. The right ramus of the mandible, showing the second and third premolars.

LUTRA PALÆINDICA.

Falc. and Caut., Falconer's Pal. Mem., vol. I, pl. XXVII (1868).

a. Cast of imperfect cranium. Original (type) in British Museum (No. 37151); Siwalik Hills, India.

LUTRA SIVALENSIS.

Enhydriodon Sivalensis, *Falc. and Caut. loc. cit.* p. 331.

From the Siwalik Hills, India.

a. Cast of cranium. Original (type) in British Museum (No. 37153).

b. Cast of anterior portion of cranium. Original (type) in British Museum (No. 37154).

c. Cast of anterior part of another cranium. Original (type) in British Museum (No 37155).

FAMILY TRICHECHIDÆ.

TRICHECHUS HUXLEYI.

Trichechodon huxleyi, *Lankester, Quart. Journ., Geol. Soc.*, vol. XXI, p. 226 (1865).

From the Red Crag of Suffolk.

a. Cast of part of the tusk of a large male. Original in York Museum.

b. Cast of terminal portion of tusk. Original in Ipswich Museum.

c. Polished sections of fragments of tusks.

ORDER RODENTIA.

FAMILY MYOXIDÆ.

MYOXUS MELITENSIS.

Leith Adams, Journ. R. Dubl. Soc., vol. IV, p. 18 (1863).

a. A series of fragmentary specimens of the skull and jaw; from the cavern and fissure deposits of Malta. *Presented by Dr. Leith Adams.*

FAMILY LEPORIDÆ.

* *LEPUS VARIABILIS.*

Pallas, Nov. Spec. Glir. p. 1 (1784).

I. *From Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

a. Fragments of skull and lower jaws, with a large series of limb-bones, &c. Leith Adams, 'Trans. R. I. Acad.,' new ser., vol. II. p. 48.

II. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

b. A large series of limb-bones, mostly imperfect. Leith Adams, 'Trans. R. Dubl. Soc.' new ser., vol. I, p. 205.

LEPUS TIMIDUS.

Linn, Syst. Nat., ed. 12, vol. I, p. 77 (1766).

a. Fragments of the skull and lower jaw; from Kent's Hole Cavern, Devonshire.

* *LEPUS CUNICULUS.*

Linn, Syst. Nat. ed. 12, vol. I, p. 77 (1766).

From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.

a. The imperfect left mandibular ramus.

b. The left humerus.

c. A series of limb-bones, &c. These comprise several perfect femora, numerous metatarsals, and the right innominate. See Leith Adams, 'Trans. R. Dubl. Soc.,' new ser., vol, I, p. 206.

ORDER UNGULATA.

SUBORDER ARTIODACTYLA.

FAMILY BOVIDÆ.

* *BOS TAURUS.*

Linn, Syst. Nat. ed. 12, vol. I, p. 98 (1766).

The whole of the specimens from Irish deposits appear to be referable to the domesticated variety to which Owen gave the name of *B. longifrons*; the species is unknown in the shell-marls and older cave-deposits yielding remains of *Cervus giganteus*.

I. *From crannogues, &c. at Dunshaughlin and other localities.*

a. An extensive series of more or less imperfect skulls. A large number of them were collected by Sir William Wilde, and presented by him to the Royal Irish Academy.

II. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

b. A few teeth, and a large series of more or less imperfect limb-bones. Leith Adams, 'Trans. R. Dubl. Soc.,' ser. 2, vol. I, p. 197.

III. Specimens referable to the large variety, *B. primigenius.*

c. Two horn-cores, probably from continental Pleistocene deposits.

d. An imperfect upper molar from Kent's Cavern, Devonshire.

e. Casts of upper and lower cheek-dentition. Originals from a Pleistocene deposit.

BOS PLATYCEROS.

Bubalus platyceros, *Lydekker, Rec. Geol. Surv. Ind.*, vol. X. p. 31 (1877).

a. Cast of calvarium and horn-cores. Original in British Museum (No. 16431); from the Siwalik Hills, India.

BOS OCCIPITALIS.

Falconer, Pal. Mem., vol. I, p. 546 (1868).

From the Siwalik Hills, India.

a. Cast of cranium with part of right horn-core. Original in British Museum (No. 16411).

b. Imperfect cranium (No. A. $\frac{2}{3}$).

BOS ACUTICORNIS.

Probubalus acuticornis, *Rutimeyer, Denks. Schw. Ges. Nat.*, vol. XXII, art. 3, p. 29 (1867).

a. Hinder part of cranium (No. D. 43); Siwalik Hills.

* *OVIS ARIES.*

Linn., Syst. Nat., ed. 12, vol. I, p. 97 (1766).

A series of more or less imperfect crania from crannoges, &c., at Dunshaughlin and other localities. These were probably introduced, and certainly indicate domesticated animals. Several of them

belong to the four-horned variety. *Mostly presented by the Royal Irish Academy.*

* *CAPRA HIRCUS.*

Linn., Syst. Nat., ed. 12, vol. I, p. 94 (1766).

I. *From crannoges, &c., at Dunshaughlin and other localities; probably introduced, and certainly domesticated.*

a. A series of more or less imperfect crania and other remains. *Mostly presented by the Royal Irish Academy.*

II. *From the Cave of Ballynamintra, Co. Waterford. Presented by R. J. Ussher, Esq.*

b. A considerable number of limb-bones, mostly imperfect, and one fragment of the lower jaw of a young animal, referable either to a Goat or Sheep. Leith Adams, 'Trans. R. Dubl. Soc.,' ser. 2, vol. I, p. 198.

CAPRA SIVALENSIS.

Lydekker, Pal. Ind., ser. 10, vol. I, p. 169 (1878).

a. Two casts of imperfect crania. Originals (types) in British Museum (Nos. 39794, 36674); Siwalik Hills, India.

ALCELAPHUS PALÆINDICUS.

Antilope palæindica, *Falc., Cat. Foss. Vert. Ac. Soc. Beng.*, p. 154 (1859).

a. Middle region of cranium (No. C. 60); from Siwalik Hills, India.

FAMILY GIRAFFIDÆ.

SIVATHERIUM GIGANTEUM.

Falc. and Caut., Asiat. Research., vol. XIX, p. 1 (1836).

From the Siwalik Hills, India.

a. Casts of skulls, antlers, and limb-bones. Originals in British Museum.

b. Left upper premolar.

c. Two left upper premolars.

d. Right lower molar, little worn.

e. Part of right ramus of mandible, with two worn molars.

f. Part of right ramus of mandible, with two little-worn molars.

g. Part of right ramus of mandible, with milk-dentition; the only other known example is in the Indian Museum, and is figured in "Pal. Ind.," ser. 10, vol. II, pl. XXI, fig. 3.

h. Centrum of axis vertebra.

i. Centrum of cervical vertebra.

j. Distal end of humerus.

k. Complete radius, associated with last specimen.

l. Naviculo-cuboid (two specimens).

m. Part of proximal phalangeal.

BRAMATHERIUM PERIMENSE.

Falc., Quart. Journ. Geol. Soc., vol. I, p. 363 (1845).

a. Glenoidal part of scapula (No. G. 11); from Perim Island, Gulf of Cambay.

GIRAFFA SIVALENSIS.

Camelopardalis sivalensis et affinis, *Falc. and Caut., Proc. Geol. Soc.*, vol. IV, p 244 (1843).

From the Siwalik Hills, India.

a. Part of imperfect right humerus. Original in British Museum (No. 39749).

b. Cast of fifth cervical vertebra. Original in British Museum (No. 39747).

FAMILY CERVIDÆ.

* *RANGIFER TARANDUS.*

Cervus tarandus, *Linn., Syst. Nat.*, ed. 12, vol. I, p. 93 (1766).

I. *From bogs and marls.*

a. The antlers of a male; from Ballybetagh, near Kiltiernan, in the Dublin Mountains. This specimen was obtained in 1847, in association with the remains of *Cervus giganteus*. It is described

and figured by Leith Adams in the 'Proc. R. Dubl. Soc.,' new ser., vol. II, pp. 77, 78, pl. I, fig. 1. *Presented by Dr. Moss.*

b. Three antlers, two of which are shed ones; from Lough Gur, Co. Limerick. Leith Adams, *loc. cit.*

c. The skull and antlers of a male; from Ballymadun, near Ashbourne, Co. Meath. This fine specimen was discovered in 1861. Figured by Carte in 'Journ. Dubl. Geol. Soc.,' vol. X, pl. VII; see also Leith Adams, 'Proc, R. I. Acad.' new ser., vol. II, p. 79.

II. *From Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

d. The imperfect calvarium, with the antlers shed. For this and following specimens see Leith Adams, 'Trans. R. I. Acad.,' vol. XXVI, p. 217.

e. Fragment of right mandibular ramus, with last two molars.

f. An extensive series of limb-bones, mostly imperfect, vertebræ, &c. Among these specimens are a very finely preserved example of the left radius and another of the metatarsus. The latter, although imperfect posteriorly, still shows the very deep groove on the posterior surface by which this part of the skeleton is so readily distinguished from the corresponding bone of the Red Deer.

III. *From Kent's Hole Cavern, Devonshire.*

g. A lower molar.

IV. *From a European Pleistocene deposit.*

h. Cast of upper and lower cheek-dentition.

* *CERVUS GIGANTEUS.*

Alces gigantea, *Blumenbach, Beitrag. z. Naturges, 1st. French ed.*, vol. II, p. 407 (1803).

Cervus megaceros, *Hart, Mammalogie*, p. 446 (1822).

Megaceros hibernicus, *Owen, Descript. Fossil Deer of Ireland*, (1826).

I. *From bogs and marls.*

a. The skeleton of a male; from Rathcannon, Co Limerick.

The antlers are of very large dimensions, and are figured by Ball in the 'Trans, R. Dubl. Soc.' new ser., vol. III, pl. XI, fig. 3. *Presented by Archdeacon Maunsell.* 1824.

b. The skeleton of a male; from Lough Naglack, near Carrickmacross. The large antlers are remarkable for the extreme length of their tines. *Presented by the Marquis of Bute.*

c. The skeleton of a female; from Lough Gur, Co. Limerick.

d. The skull of a male, with the right antler abnormally bifurcated: from Lough Gur. Ball, 'Trans., R. Dubl. Soc.,' new ser., vol. III, p. 338, pl. XI. fig. 1.

e. The skull of a male, with only a rudimentary palmation of the right antler; from Limerick. Ball, *loc. cit.*, fig. 2.

f. The cranium of a male, with the antlers shed; from Cappoquin. This is the only skull in the Museum in this condition. *Presented by R. J Ussher, Esq.*

g. A large series of skulls (some fifty in number); from various localities. This magnificent series of specimens is by far the finest in existence.

II. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

h. An extensive series of imperfect limb-bones, mostly artificially split, or gnawed by carnivores. Leith Adams, 'Trans. R. Dubl. Soc.,' new ser., vol. I, p. 200, pl. XIV, figs. 7, 8. Many were found in association with human remains.

III. *From Kent's Hole Cavern, Devon.*

i. Several upper and lower molar teeth.

* *CERVUS ELAPHUS.*

Linn., Syst. Nat., ed. 12, vol. I, p. 93 (1766).

The remains from Irish deposits indicate a comparatively small race, with slender antlers.

I. *From bogs and marls.*

a. The skeleton of a male, wanting the phalangeal bones of the feet; from Boho, Co. Fermanagh. The antlers have seven tines. *Presented by Rev. W. Steele.*

b. An extensive series of skulls and antlers; from various localities.

II. *From Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq.*

c. A small series of limb-bones and other remains, mostly imperfect. Two imperfect scapulæ and part of a humerus are from the beds in which the remains of the Mammoth were found, but the other specimens are from a higher horizon. See Leith Adams, 'Trans. R. I. Acad.,' vol. XXVI, p. 223.

III. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

d. A large series of teeth, fragments of a skull, limb-bones, &c. Leith Adams, 'Trans., R. Dubl. Soc.' new ser., vol. I, p. 199. Some of the imperfect limb-bones may be referable to the Reindeer. None of these specimens indicate animals of the large size of those whose remains are found in English caverns.

IV. *From a European Pleistocene deposit.*

e. Casts of upper and lower cheek-dentition.

CERVUS SIVALENSIS.

Lydekker, Pal Ind., ser. 10, vol. I, p. 17 (1880).

Some or all of the following specimens from the Siwalik Hills, India, may probably be referred to this species.

a. Hinder part of cranium (C. 62).

b. Frontlet (C. 58).

c. Fragment of antler (A. 70).

d. Base of antler with brow-tine (C. 61).

e. Base of antler with brow-tine (C. 76).

f. Fragment of antler (D. 36).

CERVUS SUTTONENSIS.

Dawkins, Quart. Journ. Geol. Soc., vol. XXXIV, p. 411 (1878).

From the Red Crag of Suffolk.

a. Base of antler.

b. Several molar teeth, some of which probably belong to this species.

FAMILY CAMELIDÆ.

CAMELUS SIVALENSIS.

Falc. and Caut., Asiat. Research., vol. XIX, p. 120 (1836).

From the Siwalik Hills, India.

a. Cast of imperfect cranium. Original (type) in British Museum (No. 39597).

b. Fragment of left ramus of mandible, with last two molars (No. A. 32).

c. Part of left ramus of mandible, with two molars (No. C. 72).

d. Part of left maxilla, with last three molars, wanting the summits of their crowns. This specimen indicates an animal of larger size than *a.* (No. C. 73).

FAMILY CÆNOTHERIIDÆ.

CÆNOTHERIUM COMMUNE.

Bravard, Monogr. d. Genre Cainotherium (1835).

a. Portion of upper and lower jaw; from the Lower Miocene of France. *Presented by the Trustees of the British Museum.*

FAMILY ANOPLOTHERIIDÆ.

ANOPLOTHERIUM CAYLUXENSE.

Lydekker, Cat. Foss. Mamm., Brit. Mus., pt. II. p. 98 (1885).

a. Cast of right upper cheek-teeth. Original in British Museum (No. M. 2141); from Upper Eocene Phosphorites of France. *Presented by R. Lydekker, Esq.* 1890.

FAMILY MERYCOPOTAMIDÆ.

MERYCOPOTAMUS DISSIMILIS.

Hippopotamus dissimilis, *Falc. and Caut., Asiat. Research.*, vol. XIX, p. 51 (1836).

a. Casts of skull and mandibular rami. Originals (types) in British Museum; Siwalik Hills.

FAMILY ANTHRACOTHERIIDÆ.

HYOPOTAMUS GIGANTEUS.

Lydekker, *Pal. Ind.*, ser. 10, vol. II, p. 160 (1883).

a. Cast of third left upper molar. Original (type) in Indian Museum, Calcutta; Bugti Hills, N. W. India.

ANTHRACOTHERIUM HYOPOTAMOIDES.

Lydekker, *op. cit.* p. 152.

a. Cast of part of right maxilla with two molars. Original (type) in Indian Museum; from Bugti Hills.

b. Casts of mandibular rami referable to this or preceding form; Bugti Hills.

FAMILY SUIDÆ.

HIPPOHYUS SIVALENSIS.

Falc. and Caut. in Owen's Odontography, p. 562 (1845).

a. Cast of cranium. Original (type) in British Museum (No. M. 2053); Siwalik Hills, India.

* *SUS SCROFA.*

Linn., *Syst Nat.*, ed. 12, vol. I, p. 102 (1766).

I. *From superficial deposits at various localities in Ireland, and referable to the so called 'Grey-hound Pig' of the domestic race; see Ball, 'Trans., R. Dubl. Soc.'* ser. 2, vol. III, pp. 339, 340.

a. Entire cranium, with all the cheek-teeth except the first premolar; from Ballinderry. *Presented by Dr. Lentaigne.*

b. The imperfect cranium, showing all the cheek-teeth except the first; locality unknown.

c. A smaller adult cranium; locality unknown. *Presented by the Royal Irish Academy.*

d. The imperfect cranium, with the anterior extremity of the mandible; from Dunshauglin. *Presented by the Royal Irish Academy.*

e. The imperfect hinder portion of the cranium, with the last left molar; locality unknown. *Presented by Sir William Wilde.*

II. *From Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq. Leith Adams.*, '*Trans., R. Dubl. Soc.*,' new ser., vol. I, p. 197; *there is no decisive evidence to show whether these specimens indicate the wild or a domestic race, although it is probable that they belong to the latter.*

f. A series of fragments of jaws and limb-bones. The jaws all belong to young individuals having milk-teeth. All these remains were obtained from the higher horizons of the cave-deposits.

III. *From a European Pleistocene deposit.*

g. Casts of upper and lower dentition.

SUS FALCONERI.

Lydekker, Pal. Ind., ser. 10, vol. III, p. 66 (1884).

From the Siwalik Hills, India.

a. Cranium of female. This specimen was originally figured in "Journ. Asiat. Soc., Bengal," vol. v., pl. xxxv., and its dentition in pl. xliv., fig. 3; it has been refigured in "Pal. Ind.," ser. x., vol. iii., pl. x., where it is fully described. (No. C. 27).

b. Crushed specimen of anterior portion of cranium of a male. Figured in "Journ. Asiat, Soc., Bengal," vol. v., pl. xliv., fig. 5. The last molar is slightly smaller than in the last specimen. (No. C. 31).

c. Last right upper molar, shorter than in either of the previous specimens. (No. C. 30).

d. Mandible. The dentition of this specimen is figured in "Pal. Ind.," ser. x., vol. iii., pl. vii., fig. 1. (No. C. 26).

Baker and Durand Collection.

SUS GIGANTEUS.

Falc. and Caut., Faun. Antiq. Sival., pl. LXIX, fig. 1 (1847).

a. Cast of imperfect skull. Original (type) in British Museum (No. 15385); Siwalik Hills, India.

FAMILY HIPPOPOTAMIDÆ.

HIPPOPOTAMUS AMPHIBIUS.

Linn., *Syst. Nat.*, ed. 12, vol. I, p. 101 (1766).

a. Upper canine; from a British Pleistocene deposit. *Presented by J. Ball, Esq.*

HIPPOPOTAMUS PENTLANDI.

Meyer, Palæologica, p. 533 (1832).

a. Several molar teeth; from the fissure-deposits of Malta. *Presented by Prof. Leith Adams.*

b. An astragalus; from Malta. *Presented by Prof. Leith Adams.*

HIPPOPOTAMUS PALÆINDICUS.

Falc. and Caut., Faun. Antiq. Sival., pl. LVII (1847).

From the Narbada Valley, India.

a. Cast of part of mandible. Original in British Museum (No. 40893).

b. Cast of imperfect cranium. Original in British Museum (No. 36824).

HIPPOPOTAMUS SIVALENSIS.

Falc. and Caut., Asiat. Research., vol. XIX, p. 40 (1836).

From the Siwalik Hills, India.

a. Cast of cranium. Original in British Museum (No. M. 2269).

b. A large series of specimens of skulls, jaws, teeth, limb-bones, &c.

SUBORDER PERISSODACTYLA.

FAMILY TAPIRIDÆ.

TAPIRUS ARVERNENSIS.

Deveze and Bouillet, Essai sur la Mont de Boulade (1827).

a. Two right upper molars, probably referable to this or one of the allied Pliocene species; from the Red Crag of Suffolk.

FAMILY LOPHIODONTIDÆ.

HYRACOTHERIUM VENTICOLUM.

Cope, Bull. U. S. Geol. Surv. Terrs. 1881, p. 198.

a. Plaster reproduction of the skeleton. Original from the Wasatch Eocene of the Wind River, Wyoming, U. S. A; figured in the 'Rep. U. S. Geol. Surv. Terrs.,' vol. III, pl. XLIX (1883).

FAMILY PALÆOTHERIIDÆ.

PALÆOTHERIUM CRASSUM.

Cuvier, Ann. d. Museum, vol. V, p. 348 (1805).

From the upper Eocene of Vaucluse, France. Presented by the Trustees of the British Museum.

a. Part of left maxilla with the three molars.

b. Part of right mandibular ramus, with the last four teeth.

PALÆOTHERIUM MINUS.

Cuvier, Ann. d. Museum, vol. III, p. 471 (1804).

From the Upper Eocene of Vaucluse. Presented by the Trustees of the British Museum.

a. Part of right maxilla, with last five teeth.

b. Part of left mandibular ramus, with last four teeth.

PALÆOTHERIUUM, sp.

a. A left upper molar; from the Bembridge limestone (Upper Eocene) of the Isle of Wight. From its small size it is probable that this specimen belongs to the milk-series.

FAMILY EQUIDÆ.

HIPPARION GRACILE.

Equus (Hippotherium) gracilis, *Kaup, Neues Jahrb.*, 1833, p. 327.

a. Portions of the upper and lower dentition and limb-bones; form the Lower Pliocene of Cuçuron, France. *Presented by the Trustees of the British Museum.*

b. The third left upper true molar, with the crown cut and polished; from the Red Crag of Suffolk.

c. Fragment of an upper molar, with the crown cut and polished; from the Red Crag.

d. The third right lower true molar (No. 18—14./7./77.) from the Red Crag.

HIPPARION ANTILOPINUM.

Hippotherium antilopinum, *Falc. and Caut., Faun. Antiq. Sival.*, pl. LXXXII, (1849).

a. Cast of the right maxilla. Original (type) in British Museum (No. M. 2647); from the Siwalik Hills, India.

b. Cast of the imperfect mandible. Original in British Museum (No. M. 2652); Siwalik Hills.

c. The phalangeal bones of the hind limb of a horse, which from their small size are probably referable to this species; from the Siwalik Hills (No. C. 37). *Baker and Durand Collection.*

EQUUS SIVALENSIS.

Falc. and Caut., Faun. Antiq. Sival., pl. LXXXI (1849).

From the Pliocene of the Siwalik Hills, India.

a. Cast of the cranium. Original (type) in British Museum (No. 16160).

b. Cast of part of right mandibular ramus. Original in British Museum (No. 22107).

c. Part of right ramus of mandible (No. C. 32).

Baker and Durand Collection.

d. Molar teeth.

e. Cast of axis vertebra. Original in British Museum (No. M. 2678).

EQUUS NAMADICUS.

Falc. and Caut., Faun. Antiq. Sival., pl. LXXXI (1849).

I. *From the Pleistocene of the Narbada Valley, India.*

a. Cast of the cranium. Original (type) in British Museum (No. M. 2683).

II. *From the Pliocene of the Siwalik Hills, India.*

b. The imperfect maxillæ of both sides (Nos. D. 28, 29).

* *EQUUS CABALLUS.*

Linn., Syst. Nat., ed. 12, vol. I, p. 100 (1766).

I. *From the Ballynamintra Cave, Co. Waterford. Presented by R. J. Ussher, Esq.*

a. Three molar teeth; from the higher cavern-deposits. Leith Adams, 'Trans. R. Dubl. Soc.' new ser., vol. I, p. 197.

II. *From the Shandon Cave, Co. Waterford. Presented by E. Brenan, Esq. See Leith Adams, Trans. R. I. Acad.*, vol. XXVI, p. 215.

b. The imperfect left scapula. This and the following specimens indicate a small race.

c. The right radius.

d. The left metatarsus.

e. Other bones.

III. *From Kent's Hole Cavern, Devon.*

f. A series of molars and one incisor tooth.

IV. *From European Pleistocene (?) deposits.*

g. Casts of the upper and lower dentition.

h. The upper cheek-dentition of both sides; locality unknown. *Lee Collection.*

i. A first phalangeal of the foot.

FAMILY RHINOCEROTIDÆ.

RHINOCEROS ANTIQUITATIS.

Blumenbach, Handb. d. Naturges, 1st. French ed., vol. II, p. 408 (1803).

Rhinoceros tichorhinus, *Fischer, Zool. Syst.* (1813).

From Pleistocene deposits.

a. Cast of the cranium, wanting the palate. Original in British Museum (No. 2764); from Siberia.

b. Cast of the cranium and imperfect mandible.

c. Casts of the right upper and lower dentition.

d. Eleven upper molars and premolars; from Kent's Hole Cavern, Devonshire.

e. Eleven lower molars and premolars; from Kent's Hole.

RHINOCEROS SIMUS.

Burchell, *Bull. Soc. Philom.* 1817, p. 96.

a. A much-worn second right upper true molar; from a superficial deposit in Zulu-land, S. Africa. *Presented by Lady Waddy*, 1887.

RHINOCEROS PLATYRHINUS.

Falc. and Caut., Faun. Antiq. Sival., pl. LXXII (1847).

a. The first or second left upper true molar; from the Siwalik Hills, India. Figured in 'Trans. R. Dubl. Soc.,' ser. 2, vol. III, pl. III, fig. 2 (No. C. a.). *Baker and Durand Collection.*

RHINOCEROS MEGARHINUS.

Christol. Ann. Sci. Nat., ser. 2, vol. IV, p. 76 (1835).

a. Casts of the upper and lower dentition; from a European Pleistocene deposit.

RHINOCEROS KARNULIENSIS.

Lydekker, Ree. Geol. Surv. Ind., vol. XIX, p. 121. (1886).

a. Cast of second left upper true molar. Original (type) in Indian Museum, Calcutta; from a cave in the Karnul district, Madras. *Presented by R. Lydekker, Esq.* 1890.

RHINOCEROS, Sp.

a. Three fragments of upper molars; from the Reg Crag of Suffolk.

b. A lower molar; from the Red Crag.

c. A lower premolar; from the Red Crag.

d. A left upper premolar; from the Pleistocene of Cambridgeshire. *Presented by J. Ball, Esq.*

RHINOCEROS PALÆINDICUS.

Falc. and Caut., Faun Antiq. Sival., pl. LXXIII (1847).

From the Siwalik Hills, India.

a. Cast of the cranium of a young individual. Original in British Museum (No. 36740).

b. Part of right maxilla, with the three milk-molars. Figured in the 'Trans. R. Dubl. Soc.' ser. 2, vol. III, pl. III, fig. 1 (No. C. c.). *Baker and Durand Collection.*

c. First or second left upper true molar. Figured, *op. cit.* fig. 3. (No. C. b.). *Baker and Durand Collection.*

d. A left mandibular ramus probably belonging to a young individual of this species. *Baker and Durand Collection.*

FAMILY CHALICOTHERIIDÆ.

CHALICOTHERIUM SIVALENSE.

Anoplotherium sivalense, *Falc. and Caut., Trans. Geol. Soc.*, ser. 2, vol. V, p. 502 (1837). *From the Siwalik Hills.*

a. Cast of the right maxilla. Original (one of the types) in British Museum (No. 15366).

b. Cast of the skull. Original (one of the types) in British Museum (No. M. 2710).

c. Cast of the symphysis and left ramus of the mandible. Original in British Museum (No. 36734).

CHALICOTHERIUM GOLDFUSSI.

Kaup, Oss. Foss. Darmstadt, pt. 2. p. 4. (1833).

a. Cast of left upper true molar. Original from Lower Pliocene of Eppelsheim, Hessen-Darmstadt. *Presented by R. Lydekker, Esq.* 1890.

SUBORDER CONDYLARTHRA.

FAMILY PHENACODONTIDÆ.

PHENACODUS PRIMÆVUS.

Cope, Ann. Rep. U. S. Geol. Surv. Terrs., for. 1873, p. 458 (1874).

a. Cast of slab with skeleton. Original from the Wasatch Eocene of Wyoming, U. S. A. Figured in 'Rep. U. S. Geol. Surv. Terrs.,' vol. III, pl. LVII, e. (1883).

SUBORDER PROBOSCIDEA.

FAMILY DINOTHERIIDÆ.

DINOTHERIUM GIGANTEUM.

Kaup, *Isis*, vol. XXII, p. 401 (1829).

a. A series of casts of teeth and jaws; from the Lower Pliocene of Eppelsheim, Hessen-Darmstadt. *Presented by the Trustees of the British Museum.*

FAMILY ELEPHANTIDÆ.

MASTODON AMERICANUS.

Elephas americanus, *Cuv.*, *Table Elem. d'Hist. Nat.*, p. 149 (1798). *From the Pleistocene of North America.*

a. Cast of cranium. Original in British Museum (No. 345).

b. Cast of left mandibular ramus, with two last molars. Original in British Museum (No. 343).

c. Part of right maxilla with second true molar. *Presented by the Trustees of the British Museum.*

d. The third right upper true molar. *Presented by the Trustees of the British Museum.*

e. The imperfect third right lower true molar.

MASTODON ANGUSTIDENS.

Cuvier, *Ann. d. Museum*, vol., VIII, p. 412 (1806).

a. The first right lower true molar. Original in British Museum (No. M. 2893); Middle Miocene of France.

MASTODON PANDIONIS.

Falc., *Pal. Mem.*, vol I, p. 124 (1868).

a. Cast of abnormal first left upper true molar. Original in British Museum (No. M. 2491); Perim Island, Gulf of Cambay. *Presented by the Trustees of the British Museum.*

MASTODON SIVALENSIS.

Cautley, Journ. As. Soc. Beng., vol. V, p. 294 (1836).

From the Siwalik Hills, India.

a. Cast of part of cranium with second and third molars.

b. Casts of third upper and lower true molars. Originals in British Museum.

MASTODON ARVERNENSIS.

Croiz. and Job., Oss. Foss. Puy-de-Dome, p. 138 (1828).

From the Red Crag of Suffolk.

a. The first two ridges of a second or third true molar.

b. Two ridges of a milk-molar.

MASTODON PERIMENSIS.

Falc. and Caut., Faun. Antiq. Sival., pl. XXXI (1847).

From Perim Island, Gulf of Cambay.

a. Cast of cranium. Original in British Museum (No. M. 2882).

b. Cast of part of right mandibular ramus with last molar.

MASTODON LONGIROSTRIS.

Kaup, Oss. Foss. d. Darmstadt, pt. 4, p. 65 (1835).

I. *From the Lower Pliocene of Eppelsheim, Hessen-Darmstadt.*

a. Casts of four molars.

Presented by the Trustees of the British Museum.

b. Cast of second upper true molar. Original in British Museum (No. 27267).

c. The hinder part of the third left lower true molar.

Presented by the Trustees of the British Museum.

II. *From the Red Crag of Suffolk.*

d. The germ of the second left lower true molar. This is a very rare and valuable specimen.

MASTODON CAUTLEYI.

Lydekker, Pal. Ind., ser. 10, vol. III, p. XIV (1886).

a. Cast of fourth right upper milk-molar. Original in British Museum (No. M. 2884); Perim Island, Gulf of Cambay.

MASTODON LATIDENS.

Clift, Trans. Geol. Soc., ser. 2, vol. II, p. 371 (1828).

a. Cast of part of palate, with portions of two left molars. Original in British Museum (No. M. 2891): Siwalik Hills, India.

ELEPHAS CLIFTI.

Falc. and Caut., Faun. Antiq. Sival., p. 47 (1846).

a. Cast of first left upper true molar. Original (type) in Mus. Geol. Soc.; from Burma.

ELEPHAS BOMBIFRONS.

Falc. and Caut., Faun. Antiq. Sival., p. 46 (1846).

From the Siwalik Hills, India.

a. Numerous specimens of teeth and jaws, catalogued in 'Trans. R. Dubl. Soc.,' ser. 2, vol. III, p. 74.

ELEPHAS GANESA.

Falc. and Caut., Faun. Antiq. Sival., p. 45 (1846).

From the Siwalik Hills, India.

a. Cast of cranium, with enormous tusks. Original (type) in British Museum.

ELEPHAS INSIGNIS.

Falc. and Caut., Faun. Antiq. Sival., p. 37 (1846).

From the Siwalik Hills, India.

a. Cast of cranium, with second and third true molars. Original in British Museum (No. M. 3007).

ELEPHAS PLANIFRONS.

Falc. and Caut., Faun. Antiq. Sival., p. 38 (1846).

From the Siwalik Hills, India.

a. Numerous specimens of teeth and jaws; catalogued in 'Trans. R. Dubl. Soc.,' ser. 2, vol. III, p. 75.

ELEPHAS MERIDIONALIS.

Nesti, Nuov. Giorn. Letter., 1825, p. 195.

a. Lower molar; from the Norfolk Forest-bed.

b. Two molars, cut and polished; from the Norfolk Forest-bed.

ELEPHAS HYSUDRICUS.

Falc. and Caut., Faun. Antiq. Sival., p. 41 (1846).

From the Siwalik Hills, India.

a. Cast of cranium, with third molars in use.

b. Cast of part of mandibular ramus, with third molar.

c. Several specimens of teeth and jaws; catalogued in 'Trans. R. Dubl. Soc.,' ser. 2, vol. III, pp. 75-76.

ELEPHAS NAMADICUS.

Falc. and Caut., Faun. Antiq. Sival., pl. XIII (1846).

From the Narbada Valley, India.

a. Part of left mandibular ramus, with last milk-molar. Original in British Museum (No. M. 3096).

* *ELEPHAS PRIMIGENIUS.*

Blumenbach, Handb. d. Naturges., 1st. French ed., vol. II, p. 407 (1803).

From Shandon Cave, Co. Waterford.

a. The upper and lower first true molars of a single individual, in a well-worn condition. Carte, 'Journ. R. Dubl. Soc.,' vol. II, p. 351, pl. X. Leith Adams. 'Trans. R. I. Acad.,' vol. XXVI, p. 212, and 'Proc. R. Dubl. Soc.,' new ser., vol. II, p. 68, pl. II (right upper molar). These specimens are remarkable for their extremely fresh appearance. *Presented by E. Rae, Esq.*

b. Fragments of skull and tusks associated with the preceding.

c. Numerous vertebræ, limb-bones, &c., mostly associated with the preceding, and including the imperfect right and left radius. *Some of these specimens were presented by E. Rae, Esq., and others by James Byrne, Esq., E. Brenan, Esq., and Prof. Harkness; having been discovered at intervals from 1859 to 1875.*

d. An entire right radius. Leith Adams, 'Trans. R. I. Acad.' vol. XXVI, p. 213. This specimen is important as proving the existence of a different individual from the one to which the preceding series belonged. *? Presented by Prof. Harkness.*

II. *From various Pleistocene deposits.*

e. An entire tusk; from Siberia. *Purchased* 1890.

f. Three imperfect tusks; from Siberia.

g. Seven imperfect molars; from various localities.

h. Four imperfect milk-molars from Kent's Hole, Devonshire.

ORDER CETACEA.

FAMILY BALÆNIDÆ.

BALÆNA PRIMIGENIA.

Van Beneden, Bull. Ac. R. Belg., sér. 2, vol. XXXIV, p. 9 (1872).

a. The right tympanic bone; from the Red Crag of Suffolk (No. 62).

BALÆNA INSIGNIS.

Balænotus insignis, *Van Beneden, op. cit.*, p. 13.

a. A right tympanic, probable referable to this species; from the Red Crag (No. 63).

b. A periotic bone, belonging to this or an allied species; from the Red Crag.

BALÆNOPTERA BOREALINA.

Van Beneden, Bull. Ac. R. Belg., sér 2, vol. L, p. 15 (1880).

a. The right tympanic (imperfect); from the Red Crag of Suffolk.

BALÆNOPTERA EMARGINATA.

Balæna emarginata, *Owen, Proc. Geol. Soc.*, vol. IV, p. 283 (1843).

a. The imperfect right tympanic; from the Red Crag (No. 64).

b. The imperfect left tympanic; from the Red Crag.

c. Two cervical vertebræ, probably referable to this species; from the Red Crag.

HERPETOCETUS SCALDIENSIS.

Van Beneden, Bull. Ac. R. Belg., sér. 2, vol. XXXIV, p. 20 (1872).

a. The imperfect right tympanic; from the Red Crag.

FAMILY PHYSETERIDÆ.

EUCETUS AMBLYODON.

Du Bus, Bull. Ac. R. Belg., sér. 2, vol. XXIV, p. 572 (1867).

From the Red Crag of Suffolk.

a. A tooth, wanting the outer layer and summit (No. 51).

b. Base of a tooth, cut and polished longitudinally and transversely (No. 46, a).

c. Base of a tooth, transversely cut and polished (No. 52).

d. Five transverse sections of teeth.

e. Longitudinal section of a smaller imperfect tooth, belonging to the present or an allied genus.

PHYSODON, sp.

a. Two rolled teeth, probably referable to this genus; from the Red Crag of Suffolk (Nos. 59, 60).

b. A similar tooth, longitudinally cut and polished; from the Red Crag (No. 54).

HOPLOCETUS, sp.

a. Two rolled teeth; from the Red Crag of Suffolk (Nos. 39, 44).

MESOPLODON LONGIROSTRIS.

Ziphius longirostris, *Cuvier, Oss. Foss.*, 2nd. ed., vol. V, pt. 1, p. 357 (1823).

a. The cranial rostrum; from the Red Crag of Suffolk (No. 48).

b. The extremity of a rostrum probably belonging to this species; from the Red Crag (No. 47).

c. Two transverse sections of a cranial rostrum apparently referable to this species; from the Red Crag.

MESOPLODON GIBBUS.

Ziphius gibbus, *Owen, Crag Cetacea*, p. 17 (1870).

a. The cranial rostrum, wanting the anterior extremity; from the Red Crag of Suffolk (No. 46).

FAMILY DELPHINIDÆ.

GLOBICEPHALUS UNCIDENS.

Delphinus uncidens, *Lankester, Ann. Mag. N. H.*, ser. 3, vol. XIV, p. 356 (1864).

From the Red Crag of Suffolk.

a. Two teeth (No. 36).

b. Three specimens of the periotic bone.

c. A tympanic bone.

ORDER SIRENIA.

FAMILY HALITHERIIDÆ.

HALITHERIUM SCHINZI.

Pugmeodon Schinzi, *Kaup, Neues Jahrb.*, 1838, p. 319.

a. Cast of the nearly entire skeleton. Original in Darmstadt Museum; from the Lower Miocene (Middle Oligocene) of Flonheim, Hessen-Darmstadt.

HALITHERIUM CANHAMI.

Flower, Quart. Journ. Geol. Soc., vol. XXX, p. 1 (1874).

a. Part of a rib probably referable to this genus and species; from the Red Crag of Suffolk (No. 74).

ORDER EDENTATA.

FAMILY MEGATHERIIDÆ.

MEGATHERIUM AMERICANUM.

Cuvier, in Shaw's Gen. Zool., vol. I, p. 165 (1800).

From the Pleistocene of Argentina.

a. Plaster restoration of the skeleton.

b. Casts of an associative series of bones. Originals in the British Museum (No. 19953); from Lujan. *Presented by the Trustees of the British Museum.*

SCELIDOTHERIUM LEPTOCEPHALUM.

Owen, Zool. of Voy. of 'Beagle,' pt. I, p. 73 (1840).

a. Cast of imperfect skull. Original (type) in Museum R. Coll. Surg., England (No. 3506); from the superficial deposits of Punta Alta, Patagonia.

FAMILY GLYPTODONTIDÆ.

GLYPTODON RETICULATUS.

Owen, Cat. Foss. Mamm. Mus. R. Coll. Surg., p. 119 (1845). *From the superficial deposits of S. America.*

a. Cast of carapace and caudal sheath. Original (type of *Schistopleurum typum*) in Dijon Museum; from Uruguay.

b. Cast of mandible and right femur associated with the preceding.

c. Portion of the carapace and one ring of the caudal sheath; from Argentina. *Presented by W. R. Wilde, Esq.*

d. A scute of the carapace; from Argentina.

GLYPTODON CLAVIPES.

Owen, in Parish's 'Buenos Ayres,' p. 178, *b*. (1838).

a. A scute of the carapace; from Argentina.

ORDER MARSUPIALIA.

FAMILY NOTOTHERIIDÆ.

NOTOTHERIUM MITCHELLI.

Owen, Cat. Foss. Mamm. Mus. R. Coll. Surg., p. 316 (1845).

a. Cast of the restored skull. Original in Museum at Sydney; from superficial deposits of Queensland.

FAMILY DIPROTODONTIDÆ.

DIPROTODON AUSTRALIS.

Owen, in Mitchell's 'Australia,' 2nd. ed., vol. II, p. 362 (1838).

From the superficial deposits of Australia.

a. Cast of fragment of right mandibular ramus, with last two molar teeth.

b. Fragment of jaw, showing polished section of roots of two molars.

c. Head of femur; from Kimberley, Western Australia.

CLASS AVES.

ORDER CARINATÆ.

SUBORDER PASSERES.

FAMILY CORVIDÆ.

* *CORVUS CORAX.*

Linn., Syst. Nat., ed. 12, vol. I, p. 155 (1766).

a. A series of bones, comprising both coracoids, a scapula, the right humerus, the two ulnæ, a radius, metacarpus, and proximal phalangeal of the manus; from Shandon Cave, Co. Waterford. See Leith Adams, 'Trans. R. I. Acad.,' vol. XXVI, p. 229. *Presented by E. Brenan, Esq.*

SUBORDER ANSERES.

FAMILY ANATIDÆ.

* *ANSER SEGETUM.*

Gmel., Syst. Nat., vol. I, p. 512 (1788).

a. A series of bones from Shandon Cave, Co. Waterford. These comprise two imperfect scapulæ, two coracoids, the right humerus, two imperfect specimens of the left humerus, the distal part of an ulna, right metacarpus, and two specimens of the proximal phalangeal of the manus. Several of these specimens are mentioned in the 'Trans. R. I. Acad.,' vol. XXVI, p. 229, where they are provisionally referred to the present species. *Presented by E. Brenan, Esq.*

* *BERNICLA LEUCOPSIS.*

Bechst., Orn. Taschenb., vol. II, p. 424 (1803).

a. A series of bones probably referable to this species; from Shandon Cave, Co. Waterford. These comprise the two coracoids, the imperfect right and left humerus, an ulna, radius, and the proximal extremity of the right femur. The coracoids are noticed in 'Trans. R. I. Acad.,' vol. XXVI, p. 229. *Presented by E. Brenan, Esq.*

* *SOMATERIA MOLLISSIMA.*

Anas mollissima, *Linn., Syst. Nat.*, ed. 12, vol. I, p. 198 (1766).

a. The left coracoid; from Shandon Cave, Co. Waterford. 'Trans. R. I. Acad., vol. XXVI, p. 229. *Presented by E. Brenan, Esq.*

b. A right tibio-tarsus, wanting the proximal extremity; provisionally referred to this species; from Shandon Cave. *Presented by E. Brenan, Esq.*

SUBORDER COLUMBÆ.

FAMILY DIDIDÆ.

DIDUS INEPTUS.

Linn., Syst. Nat., ed. 12, vol. I, p. 267 (1766).

From Marshes in the Island of Mauritius.

a. The skeleton, partly restored, and made up from the bones of more than one individual.

b. Cast of the skull.

c. The cranial rostrum.

d. A series of limb-bones and vertebræ; from Mahbourd, Mauritius. *Presented by Rev. Dr. Comerford*, 1865.

PEZOPHAPS SOLITARIA.

Didus solitarius, *Gmelin, Syst. Nat.*, vol. I, p. 728 (1788).

From Cavern-deposits in the Isle of Rodriquez.

a. The skeleton, made up from the bones of several individuals. *Transit of Venus Expedition.*

b.	The imperfect skull.	*Transit of Venus Expedition.*	
c.	The imperfect sternum.	,,	,,
d.	The imperfect pelvis and sacrum.	,,	,,
e.	Numerous vertebræ.	,,	,,
f.	A large series of limb-bones.	,,	,,

SUBORDER GALLINÆ.

FAMILY TETRAONIDÆ.

* *TETRAO TETRIX.*

Linn., Syst. Nat., ed. 12, vol. I, p. 274 (1766).

a. The right humerus, wanting the distal extremity; from the Ballynamintra Cave, Co. Waterford. This specimen agrees in all respects with the corresponding bone of a recent skeleton of the Black Grouse, and is very important as proving the former existence of that species in Ireland, of which there has hitherto been no evidence; see Yarrell's British Birds, 4th. ed., vol. III, pp. 62, 63 (1884). *Presented by R. J. Ussher, Esq.*

* *LAGOPUS MUTUS.*

Tetrao mutus, *Montin, Physiogr. Salks. Handl.*, p. 155 (1766).

a. The right humerus and three specimens of the coracoid; from Shandon Cave, Co. Waterford.. These specimens are noticed in the 'Trans. R. I. Acad.,' vol. XXVI, p. 229, where it is suggested that they may belong to females of *L. scoticus*. Their small size shows, however, that they indicate the former existence of the Ptarmigan in Ireland. *Presented by E. Brenan, Esq.*

c. The imperfect mandible and a femur; from the Ballynamintra Cave, Co. Waterford. *Presented by R. J. Ussher, Esq.*

SUBORDER FULICARIÆ.

FAMILY RALLIDÆ.

* *FULICA ATRA.*

Linn., Syst. Nat., ed. 12, vol. I, p. 257 (1766).

a. The right tibio-tarsus, wanting the proximal extremity; from the Ballynamintra Cave, Co. Waterford (No. 542). *Presented by R. J. Ussher, Esq.*

SUBORDER PYGOPODES.

FAMILY COLYMBIDÆ.

* *COLYMBUS SEPTENTRIONALIS.*

Linn., *Syst. Nat.*, ed. 12, vol. I, p. 220 (1766).

a. The imperfect left humerus, left femur, imperfect right tarso-metatarsus, and two fragments of the sternum; from Shandon Cave, Co. Waterford. 'Trans. R. I. Acad.,' vol. XXVI, p. 229. *Presented by E. Brenan, Esq.*

ORDER RATITÆ.

FAMILY ÆPYORNITHIDÆ.

ÆPYORNIS MAXIMUS.

Geoffroy, *Ann. Sci. Nat.*, sér. 3, vol. XIV, p. 209 (1850).

a. Two casts of the distal extremity of the tarso-metatarsus, and one of the proximal extremity of the fibula. Originals in Paris Museum; from a marsh in Madagascar.

b. Model of an egg.

FAMILY DINORNITHIDÆ.

DINORNIS MAXIMUS.

Owen, *Trans. Zool. Soc.*, vol. VI, p. 497 (1850).

From the superficial deposits of New Zealand.

a. Cast of left tibio-tarsus; from the South Island.

b. Cast of left tarso-metatarsus associated with the preceding.

c. A smaller left tarso-metatarsus, belonging to an immature bird; from Otago. *Presented by A. F. Oswin, Esq.*

d. An imperfect left tarso-metatarsus referable to an immature individual of this species or *D. giganteus*; locality unknown. *Presented by R. J. Montgomery, Esq.*

e. Model of an egg probably referable to this species.

DINORNIS STRUTHIOIDES.

Owen, *Trans. Zool. Soc.*, vol. III p. 244 (1844).

a. Cast of the right tarso-metatarsus. Original from the superficial deposits of New Zealand.

ANOMALOPTERYX CASUARINA.

Dinornis casuarinus, *Owen*, *Trans. Zool. Soc.*, vol. III, p. 322 (1847).

From the superficial deposits of New Zealand.

a. An associated series of remains, comprising the imperfect cranium, numerous vertebræ, the imperfect pelvis and sacrum, the left tibio-tarsus, fibula, and tarso-metatarsus, and several phalangeals. *Presented by Hon. H. Cavendish Butler.*

b. The associated right tibio-tarsus, fibula, and tarso-metatarsus of a rather larger individual. *Presented by Hon. H. Cavendish Butler.*

c. Cast of the right tarso-metatarsus. This specimen agrees in size with the corresponding bone of the preceding series, and appears to have been taken from the type of the species.

d. The associated right femur and left tibio-tarsus belonging to a bird of rather smaller size than either of the preceding examples; from Otago, South Island. *Presented by A. F. Oswin, Esq.*

e. The nearly entire skeleton of an individual agreeing in size with the last specimens. The cast of a skull attached to this skeleton belongs to a much larger bird referable to one of the species of *Pachyornis*.

ANOMALOPTERYX DROMÆOIDES.

Dinornis dromæoides, *Owen*, *Trans. Zool. Soc.*, vol. III, p. 253 (1844).

a. A right femur not improbably referable to this species; from the superficial deposits of New Zealand.

ANOMALOPTERYX DIDIFORMIS.

Dinornis didiformis, *Owen*, *Trans. Zool. Soc.*, vol. III, p. 242 (1844).

From the superficial deposits of New Zealand.

a. An associated series of bones, comprising the femur, tibio-tarsus, and tarso-metatarsus of each side. *Presented by Hon. H. Cavendish Butler.*

b. The right femur; from Otago. *Presented by A. F. Oswin, Esq.*

ANOMALOPTERYX CURTA.

Dinornis curtus, *Owen*, *Trans. Zool. Soc.*, vol. III, p. 325 (1847).

a. Cast of the right tarso-metatarsus. Original from the superficial deposits of New Zealand.

PACHYORNIS ELEPHANTOPUS.

Dinornis elephantopus, *Owen*, *Trans. Zool. Soc.*, vol. IV, p. 149 (1853).

a. An associated series of bones, comprising the left femur, the right and left tibio-tarsus, and the left tarso-metatarsus, referable either to a small individual of this species, or to a smaller allied form; from the superficial deposits of the South Island, New Zealand. *Presented by Hon. H. Cavendish Butler.*

PACHYORNIS, sp.

a. Cast of the skull. This specimen is at present affixed to the skeleton of *Anomalopteryx casuarina*.

FAMILY DROMORNITHIDÆ.

DROMORNIS AUSTRALIS.

Owen, *Proc. Zool. Soc.*, 1872, p. 682.

a. Cast of the distal extremity of the right tibio-tarsus. The original (type) is from the superficial deposits of Australia. *Presented by Dr. J. M. Barry.*

ORDER SAURURÆ.

FAMILY ARCHÆOPTERYGIDÆ.

ARCHÆOPTERYX LITHOGRAPHICA.

Meyer, *Neues Jahrb.*, 1861, p. 561.

Archæopteryx macrura, *Owen*, *Phil. Trans.*, 1863, p. 33, note.

a. Cast of slab of Lithographic limestone, showing skeleton. Original (type of *A. macrura*) in British Museum; from the Upper Jurassic of Solenhofen, Bavaria.

CLASS REPTILIA.

ORDER ORNITHOSAURIA.

FAMILY PTERODACTYLIDÆ.

PTERODACTYLUS KOCHI.

Ornithocephalus kochi, *Wagner*, *Abh. Bay. Ak.*, vol. II, p. 168 (1837).

a. Cast of a slab of lithographic limestone, showing the skeleton. Original in Munich Museum; from Upper Jurassic of Eichstadt, Bavaria.

PTERODACTYLUS LONGICOLLUM.

Meyer, *Neues. Jahrb*, 1854, p. 52.

a. Casts of a slab of lithographic limestone, showing the skeleton. Original from Eichstadt.

ORDER CROCODILIA.

FAMILY CROCODILIDÆ.

CROCODILUS SIVALENSIS.

Lydekker, *Pal. Ind.*, ser. 10, vol. III, p. 213 (1886).

From the Siwalik Hills, India.

a. Cast of the skull. Original in British Museum (No. 39797).

b. Imperfect cranium (No. A. 3/5).

c. Articular portion of mandible (No. A. 3/42).

d. Cast of very young skull. Original in British Museum (No. 40823).

CROCODILUS SPENCERI.

Buckland, *Geol. and Mineral.*, pl. XXV, fig. 1 (1837).

a. Cast of skull Original in British Museum (No. R. 1753); from London Clay. Type of *C. toliapicus*, Owen.

GARIALIS GANGETICUS.

Lacerta gangetica, *Gmelin*, *Syst. Nat.*, vol. I, p. 1057 (1788).

From the Siwalik Hills, India.

a. Cast of hinder part of skull. Original in British Museum (No. 36726).

b. Cast of hinder part of young cranium, with fragment of mandible Original in British Museum (No. 36727).

c. Hinder part of cranium (No. A. 3/64).

d. Occiput (No. G. 26).

e. Two specimens of mandibular symphysis (Nos. D. 39, C. 50).

f. Mandibular ramus (No. G. 26).

g. Extremity of premaxillæ (No. D. 37).

h. Symphysis and part of left ramus of mandible (No. D. 37).

i. Middle region of cranium (No. G. 58).

GARIALIS PACHYRHYNCHUS.

Lydekker, *Pal. Ind.*, ser. 10, vol. III, p. 227 (1886).

a. Hinder portion of the mandibular symphysis, wanting the dental alveoli on the right side; from Sind, India (No. D. 38).

RHAMPHOSUCHUS CRASSIDENS.

Crocodilus crassidens, *Falc. and Caut.*, *Trans. Geol. Soc.*, ser. 2, vol. V, p. 503 (1840).

a. Cast of the rostrum of the skull. Original in British Museum (No. 39802); from the Siwalik Hills, India.

FAMILY TELEOSAURIDÆ.

PELAGOSAURUS TYPUS.

Bronn, *Gavialartigen Reptilien*, p. 28 (1841).

a. The skull wanting the greater part of the cranial rostrum; from the Upper Lias of Whitby, Yorkshire.

ORDER DINOSAURIA.

FAMILY UNCERTAIN.

ARCTOSAURUS OSBORNI.

Leith Adams, *Proc. R. I. Acad.*, ser. 2, vol. II, p. 177 (1875).

a. A crushed cervical vertebra; brought from Rendezvous Mountains, at the North End of Bathurst Island, by Capt. Sherrard Osborne. Type. *Presented by J. W. Salter, Esq.*

FAMILY SCELIDOSAURIDÆ.

HYÆOSAURUS OWENI.

Mantell, Medals of Creation, p. 734 (1844).

a. Cast of slab of sandstone, showing a considerable portion of the skeleton. Original (type) in British Museum (No. 3775); from the Wealden of Cuckfield, Sussex.

FAMILY IGUANODONTIDÆ.

IGUANODON BERNISSARTENSIS.

Boulenger, Bull. Ac. R. Belg., sér. 3, vol. I. p. 606 (1881).

a. Two rolled caudal vertebræ; from the Wealden of the Isle of Wight.

IGUANODON MANTELLI.

Meyer, Palæologica, p. 110 (1832).

a. Cast of a crushed left tibia. Original from the Wealden, probably of Sussex.

b. Several rolled caudal vertebræ; from the Wealden of the Isle of Wight.

c. Part of an undetermined 'long-bone' apparently referable to this genus; from the Isle of Wight.

INCERTÆ SEDIS.

a. An imperfect dorsal vertebra of a Dinosaur; from the Kimeridge (?) Clay of Wiltshire.

ORDER ICHTHYOPTERYGIA.

FAMILY ICHTHYOSAURIDÆ.

ICHTHYOSAURUS CAMPYLODON.

Carter, Rep. Brit. Assoc. for 1845—*Trans. of Sect.*, p. 60 (1846).

a. The centrum of a dorsal vertebra; from the Cambridge Greensand.

b. Several imperfect teeth; from the Cambridge Greensand.

ICHTHYOSAURUS TRIGONUS.

Owen, Rep. Brit. Assoc. for 1839, p. 124 (1840).

a. A series of vertebral centra belonging to this or allied species; from the Kimeridge Clay of England.

b. The centrum of a very large caudal vertebra; from the Kimeridge Clay of Shotover, near Oxford. *Presented by D. T. Thiselton Dyer, Esq.*

ICHTHYOSAURUS COMMUNIS.

Conybeare, Trans. Geol. Soc., ser 2, vol. I, p. 108 (1822).

a. Slab showing left lateral aspect of greater part of skeleton; from the Lower Lias of Barrow-on-Soar, Leicestershire. Although the pelvic paddles are wanting, the pectoral ones apparently indicate that the specimen belongs to the present, as distinct from the next species.

b. Slab showing dorsal aspect of the skeleton of a smaller individual; from the Lower Lias of Lyme-Regis, Dorsetshire.

c. Slab showing the headless skeleton of a very young individual; from Lyme-Regis.

d. Slab with the imperfect skeleton of a nearly similar individual; from Lyme-Regis.

e. Slab showing the imperfect skeleton of a young individual probably belonging to this species; from Barrow.

f. Slab showing the pectoral paddle of a very large individual; from Lyme-Regis.

g. Slab with a smaller imperfect pectoral paddle probably referable to this species; from Lyme-Regis.

h. Slab with small imperfect pectoral paddle; from Lyme-Regis.

i. Several large teeth; from Lyme-Regis.

Of the following specimens some probably belong to the present and others to the next species.

k. The imperfect skull of a medium-sized individual; from Barrow. The large size of the teeth indicates *I. communis.*

l. A nearly similar imperfect skull; from Lyme.

m. An imperfect and distorted skull; from Street. The orbits have been squeezed so as to assume a forward direction. Probably referable to *I. intermedius*.

n. The orbital region of a small skull; from Barrow.

o. The middle part of a nearly similar skull.

ICHTHYOSAURUS INTERMEDIUS.

Conybeare, Trans. Geol. Soc., ser. 2, vol. I, p. 108 (1822).

a. Cast of slab with skeleton. Original in British Museum (No. 2013 *); from Lower Lias of Street, Gloucestershire.

b. Slab showing right lateral aspect of a smaller skeleton; from Street. The distinctive features of the paddles are well shown.

c. Slab showing the right lateral aspect of the anterior half of the skeleton of a smaller individual; from Street.

d. Slab showing a skeleton referable to this or the preceding species; from Barrow. The skull is seen from the frontal aspect, and the body from the right side. The paddles have been restored incorrectly.

e. Slab showing left lateral aspect of a large skeleton; from Street. The anterior dorsal region is bent into a curve. One pectoral paddle is entire.

f. Slab showing the left lateral aspect of a nearly similar, but more imperfect skeleton; from Barrow.

g Slab showing the right side of a smaller imperfect skeleton; from Barrow. The skull is much crushed.

h. Slab showing the right lateral aspect of a large imperfect skeleton; from Barrow. One pectoral limb is fairly preserved.

i. Slab showing the anterior part of a distorted skeleton; from Barrow.

k. Slab with a small imperfect skeleton; from Barrow. The skull is seen from the frontal aspect; only fragments of the paddles remain.

l. Slab with a very small imperfect skeleton; from Barrow.

m. Slab showing a rather larger imperfect skeleton; from Barrow. The ventral aspect of the skull is exposed, and portions of the paddles are well preserved.

n. Slab with an imperfect medium-sized skeleton; from Barrow. The skull and paddles are seen from the dorsal aspect.

o. Slab showing an imperfect medium-sized skeleton; from Barrow.

p. Slab exhibiting a nearly entire adult skeleton; from Barrow. The dorsal aspect of the skull and pectoral paddles is exposed; the latter being well presrved.

ICHTHYOSAURUS TENUIROSTRIS.

Conybeare, Trans. Geol. Soc., ser. 2, vol. I, p. 108 (1822).
From the Lower Lias.

Of the following specimens it is probable that some belong to *I. latifrons*, Köning, but the whole series seems to render it very doubtful whether the latter is a valid species.

a. Slab showing central aspect of an adult skeleton; from Long Sutton, Somersetshire. The pectoral girdle is beautifully seen. The rostrum has the medium-length characteristic of this species, as distinguished from *I. latifrons*.

b. Slab showing a larger imperfect skeleton; from Barrow-on-Soar, Leicestershire. The ventral aspect of the pectoral girdle is exposed.

c. Slab showing a smaller imperfect skeleton; from Barrow. The frontal aspect of the skull is exposed and the paddles are well preserved.

d. Slab showing the right lateral aspect of an adult full-grown skeleton; from Barrow. The large size of the orbit and slenderness of the rostrum are characters of *I. latifrons*. The posterior notch in the coracoid is exhibited.

e. Slab showing the left lateral aspect of a rather smaller skeleton; from Barrow.

f. Slab showing the dorsal aspect of a nearly similar skeleton; from Barrow. The position of the large parietal foramen in the middle of the frontals is well shown; this being a feature of *I. latifrons.*

g. Slab exhibiting the left side of the hinder part of the skull; from Barrow. The rostrum has been incorrectly restored in plaster.

h. Cast of a slab showing the upper surface of a skull belonging to a species identical with or allied to the present; from Barrow.

Specifically Undetermined Specimens.

a. A series of vertebral centra from the Lower Lias of Lyme-Regis.

b. An associated series of larger vertebræ; from Lyme.

c. Slab with the imperfect pectoral paddles of a large species of the Longipinnate group; locality unknown.

TEMNODONTOSAURUS PLATYODON.

Ichthyosaurus platyodon, *Conybeare, Trans. Geol. Soc.*, ser. 2, vol. I, p. 108 (1822).

a. Cast of the middle portion of a very large skull. Original in British Museum (No. R. 808); from Lower Lias of Lyme-Regis, Dorsetshire.

b. The imperfect skull of a smaller individual; from the Lower Lias of Street, Gloucestershire. The teeth are finely preserved.

c. The flattened skull of a still smaller individual; from the Lower Lias of Lyme.

d. Slab showing the right side of a finely preserved skull; from Lyme.

e. The rolled centrum of a caudal vertebra.

ORDER SAUROPTERYGIA.

FAMILY PLESIOSAURIDÆ.

PLIOSAURUS BRACHYDIRUS.

Owen, Odontography, p. 283 (1841).

a. The centrum of a caudal vertebra; from the Kimeridge Clay of England (No. 558).

b. The crown of a tooth; from the bone-bed in the Lower Greensand, Upware, Cambridgeshire. *Presented by Norman Moore, Esq.*

THAUMATOSAURUS CRAMPTONI.

Plesiosaurus cramptoni, *Carte and Baily, Journ. R. Dubl. Soc.*, vol., IV, p. 163 (1863).

a. The entire skeleton, embedded in rock, with the dorsal surface exposed; from the Upper Lias of Kettleness, near Whitby, Yorkshire. Type.

THAUMATOSAURUS ARCUATUS.

Plesiosaurus arcuatus, *Owen, Rep. Brit. Assoc.*, for 1839, p. 75 (1840).

a. Slab showing the somewhat imperfect skeleton; from the Lower Lias of Barrow, Leicestershire. The skull is seen from the frontal aspect, and closely resembles that of *T. cramptoni.* A considerable number of vertebræ are missing from the middle of the neck. In the limbs only the humerus and femur are preserved; the femur being the larger, its length is 16. 5 and its distal width 7. 5 inches.

THAUMATOSAURUS MEGACEPHALUS.

Plesiosaurus megacephalus, *Stutchbury, Quart. Journ. Geol. Soc.*, vol. II, p. 412 (1846),

a. A number of slabs of rock containing the greater part of the skeleton; from the Lower Lias of Street, Somersetshire. The skull is entire, and larger than in *T. megacephalus.* The humerus is, however, not larger than the femur, having a length of only 14 inches with a distal width of 8 inches. These differences in the proportions of the limbs appear to confirm the specific distinction of this shorter-limbed form from *T. arcuatus.* One coracoid is entire.

b. A dorsal vertebra referable either to this genus or to one of the larger species of *Plesiosaurus*; from the Lower Lias; locality unknown.

POLYPTYCHODON INTERRUPTUS.

Owen, Odontography, pl. 72, fig. 4 (1841).

a. Crown of tooth; from the Cambridge Greensand.

CIMOLIOSAURUS TROCHANTERIUS.

Plesiosaurus trochanterius, *Owen, Rep. Brit. Assoc.* for 1839, p. 85 (1840).

a. The centrum of a middle cervical vertebra; from the Lower Greensand bone-bed of Potton, Bedfordshire. *Presented by Norman Moore, Esq.*

CIMOLIOSAURUS, sp.

a. Two specimens of the humerus; from the Cambridge Greensand.

PLESIOSAURUS DOLICHODIRUS.

Conybeare, Trans. Geol. Soc., ser. 2, vol. I, p. 389 (1824).

a. Slab showing the skeleton, wanting the lumbar and caudal regions; from the Lower Lias of Lyme-Regis, Dorsetshire. The palate of the skull is exposed, the cervical vertebræ are scattered, and those of the dorsal region seen from the left side. The right scapula and left coracoid are entire.

PLESIOSAURUS HAWKINSI.

Owen, Rep. Brit. Assoc. for 1839, p. 57 (1840).

a. Cast of slab showing ventral aspect of immature skeleton. Original (type) in British Museum (No. 2018*); from Lower Lias of Street, Somersetshire.

PLESIOSAURUS MACROCEPHALUS.

Owen, Rep. Brit. Assoc. for 1839, p. 62, (1840).

a. Cast of slab with skeleton of immature individual. Original (type) in British Museum (No. R. 1336); from Lower Lias of Lyme-Regis, Dorsetshire.

Specifically undetermined specimens.

a. A left humerus; from the Lias of Street.

b. Six dorsal vertebræ, cemented together by matrix; from Barrow.

PLESIOSAURUS, sp.

a. An imperfect late cervical vertebral centrum; from the Rhætic of "Old Passage" near Bristol. This specimen is larger and shorter than the vertebræ from the same locality provisionally referred to *P. bitractensis* in 'Cat. Foss. Rept. Brit. Mus.,' pt. II, p. 283, but has the same general character. The length is 1. 6, height 2. 7, width about 3. 5, inches. *Presented by Lord Enniskillen.*

ORDER CHELONIA.

FAMILY TRIONYCHIDÆ.

a. A series of fragments of skulls referable to several members of the family; from the Siwalik Hills, India.

FAMILY CHELONIDÆ.

CHELONE HOFFMANNI.

Gray, Syn. Rept., p. 54 (1831).

a. A costal bone in matrix; from the Upper Cretaceous of Maastricht, Holland.

GENUS, non. det.

a. Middle part of the carapace of a young specimen; from the London Clay.

FAMILY TESTUDINIDÆ.

TESTUDO VOSMŒRI.

Fitzinger, N. Class. Rept,. p. 44 (1826).

T. rodericensis, *Gunther, Ann. Mag. N. H.* (4) vol. XI, p. 397 (1873).

a. A series of imperfect skulls and bones; from the superficial deposits of Rodriquez. *Transit of Venus Expedition.*

TESTUDO, sp.

a. Distal extremity of humerus or femur; from a marsh in Mauritius. *Presented by Rev. Dr. Comerford.*

TESTUDO ATLAS.

Colossochelys atlas, *Falc. and Caut.*, *Proc. Zool. Soc.*, 1844, p. 54. *From the Siwalik Hills, India.*

a. Restoration of the shell. This is much too long: the approximate length being really about 6 feet. See 'Cat. Foss. Rept. Brit. Mus.,' pt. III, pp. 74, 76.

b. Cast of the epiplastral bones of the plastron. Original in British Museum (No. 40603).

c. Cast of the cranium. Original in British Museum (No. 39819).

d. Cast of the imperfect right humerus. Original in British Museum (No. 16518).

e. Fragments of shell.

DAMONIA HAMILTONI.

Emys hamiltoni, *Gray*, *Syn. Rept.*, p. 21 (1831).

a. Cast of shell. Original in British Museum (No. 39838); from Siwalik Hills, India.

HARDELLA THURGI.

Emys thurgi, *Gray*, *op. cit.* p. 22.

a. The imperfect shell of a young male; from the Siwalik Hills.

b. Cast of the shell of an adult female. Original in British Museum (No. 39834); Siwalik Hills.

c. Numerous fragments of shells of this genus or *Kachuga*; Siwalik Hills.

FAMILY PLEUROSTERNIDÆ.

PLEUROSTERNUM BULLOCKI.

Platemys bullocki, *Owen*, *Rep. Brit. Assoc.* for 1841, p. 164 (1842).

From the Purbeck of Swanage, Dorsetshire.

a. Slab with carapace, imperfect anteriorly.

b. Slab with plastron.

CLASS AMPHIBIA.

ORDER LABYRINTHODONTIA.

FAMILY MASTODONSAURIDÆ.

TREMATOSAURUS BRAUNI.

Burmeister, *Labyrinth. bunt. Sandst.*, p. 69 (1849).

a. The imperfect skull in matrix; from the Bunter Trias of Bernburg, Germany.

FAMILY ANTHRACOSAURIDÆ.

* *LOXOMMA ALLMANI.*

Huxley, *Quart. Journ. Geol. Soc.*, vol. XVIII, p. 293 (1862).

a. Cast of the skull. Original in British Museum (No. R. 385); from the Coal Measures of Dawley, near Coalbrookdale, Shropshire.

b. A flattened skull; from the Coal Measures of Jarrow Colliery, County Kilkenny. This specimen shows very distinctly the enormous orbits characteristic of the genus, and is the first recorded example from these deposits; it is noticed by Baily in the 'Rep. Brit. Assoc.,' 1883, p. 497, as *Anthracosaurus*.

Geological Survey Collection.

* *ANTHRACOSAURUS RUSSELLI.*

Huxley, *Quart. Journ. Geol. Soc.*, vol. XIX, p. 56 (1863).

Anthracosaurus edgei, *Baily*, *Rep. Brit. Assoc.*, 1878, p. 530.

a. Slab of shale with an imperfect skeleton probably referable to this genus and species; from the Coal Measures of Jarrow Colliery, County Kilkenny. The skull appears to have the small orbits characteristic of *Anthracosaurus*, and the mandible seems to have the great depth distinguishing *Anthracosaurus* from *Loxomma*. Noticed by Baily in the 'Rep. Brit. Assoc.,' 1878, p. 530, as the type of *A. edgei*. *Geological Survey Collection.*

b. Slab showing the counterpart of the preceding specimen. Here the anterior part of the skull (missing in the latter) is shown. In both one mandibular ramus is detached from the skull.

c. Slab showing outline of nine vertebræ probably belonging to this genus; from Jarrow. There are no traces of the large intercentra found in *Loxomma*. Noticed by Baily in the 'Rep. Brit. Assoc.,' 1883, pp. 496, 497, as *A. edgei*.

FAMILY DENDRERPETIDÆ.

* *ICHTHYERPETUM BRADLEYÆ*.

Ichthyerpeton bradleyæ, *Huxley*, *Trans. R. I. Acad.* vol. XXIV, p. 367 (1867).

Erpetocephalus rugosus, *Huxley*, *op. cit.*, p. 368.

From the Coal Measures of Jarrow Colliery, County Kilkenny.

a. Fragment of shale showing the impression of the skull and anterior vertebræ. The skull is similar to the one described by Huxley as *Erpetocephalus*, while the vertebræ are those of *Ichthyerpetum*; the generic identity of the two specimens to which these names were applied has been pointed out by the writer in the "Cat. Foss. Rept. and Amphib. Brit. Mus.," pt. IV, pp. 168, 169. *Geological Survey Collection.*

b. Slab showing traces of two skulls. *Geological Survey Collection.*

* *ICHTHYERPETUM*, sp. nov.

a. Split slab of shale, showing cranium and mandible of a species larger than *I. bradleyæ*; from Jarrow Colliery. This specimen shows that the genus is closely allied to *Dendrerpetum* and *Pholidogaster*, and has no affinity with *Nyrania*, near which it has been placed by the writer.

FAMILY ARCHEGOSAURIDÆ.

ARCHEGOSAURUS DECHENI.

Goldfuss, *Beitr. vorwelt. Fauna der Steinkohl*, p. 3 (1847).

a. The imperfect skull, and counterpart, in matrix; from the

Coal-bearing shales of the Lower Permian of Saarbrück, Rhenish Prussia.

FAMILY UROCORDYLIDÆ.

* *UROCORDYLUS WANDESFORDI.*

Huxley, Trans. R. I. Acad., vol. XXIV, p. 359 (1867).

From the Coal Measures of Jarrow Colliery, Kilkenny.

a. Slab showing the head and the greater part of the vertebral column. The characteristic expansion of the neural and hæmal processes of the vertebræ is very clearly shown.

Geological Survey Collection.

b. Fragment of shale exhibiting a small portion of the vertebral column. *Presented by W. S. Keogh, Esq.*

c. Slab showing badly-preserved skeleton, of which the hinder part is missing. *Presented by J. T. Butler, Esq.*

* *CERATERPETUM GALVANI.*

Keraterpeton galvani, *Huxley, Trans. R. I. Acad.*, vol. XXIV, p. 359 (1867).

From the Coal Measures of Jarrow Colliery, Kilkenny.

a. Block with medium-sized skeleton, imperfect posteriorly.

Presented by J. T. Butler, Esq.

b. Block with smaller skeleton in a fine state of preservation.

c. Slab with impression of small skeleton.

d. Slab showing entire small skeleton. This example appears to be unique in exhibiting the whole length of the tail.

Geological Survey Collection.

e. Block with imperfect small skeleton.

Geological Survey Collection.

f. Block showing larger skeleton without the skull.

Geological Survey Collection.

g. Slab showing impression of a small skeleton. The long epiotic cornua of the skull are very distinctly shown.

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h. Block with anterior part of a small skeleton.

FAMILY UNCERTAIN.

* *LEPTERPETUM DOBBSI.*

Lepterpeton dobbsi, *Huxley, Trans. R. I. Acad.*, vol. XXIV, p. 199 (1867).

a. Block showing imperfect skeleton apparently referable to a large individual of this species; from Jarrow Colliery, Kilkenny.

Geological Survey Collection.

FAMILY DOLICHOSOMATIDÆ.

* *DOLICHOSOMA EMERSONI.*

Huxley, Trans. R. I. Acad., vol. XXIV, p. 366 (1867).

From the Coal Measures of Jarrow, Kilkenny.

a. Slab showing the greater portion of two skeletons, in a bad state of preservation. *Presented by J. T. Butler, Esq.*

* *DOLICHOSOMA HUXLEYI*, n. sp.

Much larger than *D. emersoni*, having a length of about 20 inches, and thus approximating to *D. longissimum* of the Lower Permian of Bohemia, to which it was probably nearly allied.

a. Slab with the impression of the skeleton, wanting the posterior extremity; from the Coal Measures of Jarrow Colliery, Co. Kilkenny. Type. The vertebræ have the elongated form characteristic of *Dolichosoma*, as distinct from *Ophiderpetum*; and there are no traces of scutes.

* *OPHIDERPETUM BROWNRIGGI.*

Ophiderpeton brownriggi, *Huxley, Trans. R. I. Acad.*, vol. XXIV, p. 364 (1867).

From the Coal Measures of Jarrow Colliery. Co. Kilkenny.

a. Slab showing skeleton, imperfect posteriorly, and in a bad state of preservation. *Presented by W. S. Keogh, Esq.*

b. Slab with skeleton of a rather smaller individual.

Geological Survey Collection.

c. Slab showing impression of part of a skeleton referable either to *Ophiderpetum* or to a large species of *Dolichosoma*.

Geological Survey Collection.

FAMILY UNCERTAIN.

CHIROSAURUS BARTHI.

Chirotherium, an Chirosaurus, barthi, *Kaup, Neues Jahrb.*, 1835, p. 328.

From the Bunter Trias of Hessberg, near Hildburghausen, on the flanks of the Thuringerwald.

a. Slab of rock showing prints of a fore and hind foot.

b. Two casts of slabs with foot-prints.

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